217/782-2113 CERTIFIED MAIL

CONSTRUCTION PERMIT GRANT -- OPERATING PERMIT DENIAL -- NSPS SOURCE

PERMITTEE

American Nickeloid Company
Attn: Laurie Shields
2900 West Main Street
Peru, Illinois 61354

Application No.: 00030017
Applicant's Designation: WC00
Subject: Coil Coating
Date Issued: May 24, 2000
Location: 2900 West Main Street, Peru

I.D. No.: 099827AAA
Date Received: March 6, 2000

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of prime coater, finish coater, prime oven, finish oven, 2 quench tanks, and vapor incinerator that controls the two ovens and two coaters as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1. This coating line is subject to a New Source Performance Standard (NSPS) for Metal Coil Surface Coating, 40 CFR 60, Subparts A and TT. The Illinois EPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement.

2. Pursuant to the NSPS (40 CFR 60.462), each owner and operator subject to 40 CFR Subpart TT shall not cause to be discharged into the atmosphere more than:

   a. 0.14 kilograms of volatile organic compounds (VOC) per liter of coating solids applied of each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

   b. 10% of the VOC's applied for each calendar month (90% emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

   c. A value between 0.14 (or a 90% emission reduction) and 0.28 kg. VOC/liter of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

d. At all times, the Permittee shall also, to the extent practicable, maintain and operate the coil coating lines, dryers and incinerator in a manner consistent with good air pollution control practice for minimizing emissions.

3. The capture and control system (afterburner) on the affected coil coating line shall comply with the requirements of 35 Ill. Adm. Code 215.205(b) (90 percent efficiency across the control device, 81 percent overall reduction in VOM emissions). Compliance with this requirement shall be demonstrated by the testing required by Condition 6, the monitoring required by Condition 9, the recordkeeping required by Condition 10.

4a. Emissions and operation of new coating line addition shall not exceed the following limits:

Item of Equipment	VOM Usage (Ton/Mo)	VOM Usage (Ton/Yr)	Overall Destruction Efficiency (%)	VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
Coating Line Addition to Line F	16	160	90	3,200	16

These limits are based on complete volatization of the VOM content in coatings. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. This permit is issued based on negligible emissions of volatile organic material (VOM) and particulate matter (PM) from 2 quench tanks. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.

c. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

d. Emissions and operation of natural gas combustion from vapor incinerator shall not exceed the following limits:

Item of Equipment	Maximum Firing Rate (mmBtu/Hr)	Pollutant	Emission Factor (Lb/Therm)	Emissions (Lb/Hr)	Emissions (T/Yr)
Vapor Incinerator	2.9	NO_x 100	0.28	1.25	
		CO 84	0.24		1.05

These limits are based on standard AP-42 emission factors and 8,760 hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

5a. The afterburner shall be in operation at all times when the associated emission unit(s) is in operation and emitting air contaminants.

b. The afterburner combustion chamber shall be preheated to at least the manufacturer's recommended temperature but no less than the temperature at which compliance was demonstrated in the most recent compliance test, or 1400?F in the absence of a compliance test. This temperature shall be maintained during operation.

c. The afterburner shall be equipped with a continuous monitoring device which is installed, calibrated, maintained, and operated according to vendor's specifications at all times that the afterburner is in use. This device shall monitor the afterburner combustion chamber temperature.

d. The Permittee shall collect and record the following information each day;

i. Afterburner combustion chamber monitoring data.

ii. A log of operating time for the capture system, afterburner, monitoring device, and the associated emission unit(s).

iii. A maintenance log for the capture system, afterburner, and monitoring device detailing all routine and non-routine maintenance performed including dates and duration of any outages.

e. All records shall be maintained for three years and be made available to the Illinois EPA for inspection or copying upon request.

f. Any record showing a violation of the conditions of this permit or 35 Ill. Adm. Code 215.205(b), shall be reported by sending a copy of such record within 30 days following the occurrence of the violation.

6. The following methods for testing, measuring, and calculating emissions and operating parameters of the affected coil coating line shall be performed within 60 days after achieving the maximum production rate at which the affected coil coating line will be operated, but not later than 180 days after initial startup.

a. Pursuant to 40 CFR 60.8(a) and 60.463(c)(2), within 60 days after achieving the maximum production rate at which the affected coil coating line will be operated, but not later than 180 days after initial startup, the Permittee shall determine the overall reduction efficiency (R) for the capture system and control device

by the procedures specified by 40 CFR 60.463(c)(2)(i)(A), (B), and (C). Other test/measuring methods (e.g., 40 CFR 60, Appendix A, Method 25A for VOM concentrations, 40 CFR 51, Appendix M, Method 204/204D for capture efficiency) may be used provided that a request is submitted in the test plan required by Condition 7 and approved by the Illinois EPA.

i. Determine the fraction (F) of total VOM's emitted by an affected coil coating line that enters the afterburner using the following equation:

Install Equation Editor and double-click here to view equation.

Where:

F = The proportion of total VOM's emitted by the affected coil coating line that enters the control device (fraction).

C_b = The VOM concentration in each gas stream entering the control device (parts per million by volume, as carbon).

C_f = The VOM concentration in each gas steam emitted directly to the atmosphere (parts per million by volume, as carbon).

Q_b = The volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

Q_f = The volumetric flow rate of each gas steam emitted directly to the atmosphere (dry standard cubic meters per hour).

l = The number of gas streams entering the afterburner.

p = The number of gas streams emitted directly to the atmosphere.

ii. Determine the destruction efficiency of the afterburner (E) using values of the volumetric flow rate of each of the gas streams and the VOM content (as carbon) of each of the gas streams in and out of the afterburner by the following equation:

Install Equation Editor and double-click here to view equation.

Where:

E = VOM destruction efficiency of the afterburner (fraction).

C_a = The VOM concentration in each gas stream leaving the afterburner and entering the atmosphere (parts per million by volume, as carbon).

C_b = The VOM concentration in each gas stream entering the afterburner (parts per million by volume, as carbon).

Q_a = The volumetric flow rate of each gas stream leaving the afterburner and entering the atmosphere (dry standard cubic meters per hour).

Q_b = The volumetric flow rate of each gas stream entering the afterburner (dry standard cubic meters per hour).

n = The number of gas streams entering the afterburner.

m = The number of gas streams leaving the afterburner and entering the atmosphere.

The Permittee of the affected coil coating line shall construct the VOM emission reduction system so that all volumetric flow rates and total VOM emissions can be accurately determined by the test methods and procedures specified in Condition 6(a)(iv). The Permittee of the affected coil coating line shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOM emissions are measurable. If a permanent enclosure exists in the affected coil coating line prior to the performance test and the Illinois EPA is satisfied that the enclosure is adequately containing VOM emissions, no additional enclosure is required for the performance test.

iii. Determine overall reduction efficiency (R) using the following equation:

$$R = EF$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected coil coating line is in compliance.

iv. Pursuant to 40 CFR 60.466, the following test methods shall be used for measuring the pertinent data to be used to perform the calculations of Conditions 6(a)(i), (ii), and (iii),:

Method 1 for sample and velocity traverses;
Method 2 for velocity and volumetric flow rate;
Method 3 for gas analysis;
Method 4 for stack gas moisture; and
Method 25 for both measuring the VOM concentration in each gas stream entering and leaving the afterburner on each stack equipped with the afterburner and for measuring the VOM concentration in each gas stream emitted directly to the atmosphere.

x For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dry standard cubic meter (DSCM); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Illinois EPA.

7. The coating line addition may be operated for a period of 180 days after completion of construction, under this construction permit.

a. At least thirty (30) days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review and approval. This plan shall describe the specific procedures for testing including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum emissions, the levels of operating parameters at or within which compliance is

intended to be shown, if applicable, and the means by which the operating parameters for the process and any control equipment will be determined.

iii. The specific determination of emissions and operations which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

vi. Any proposed use of an alternative test method, with detailed justification.

vii. The format and content of the Source Test Report prior to carrying out these tests, the Illinois EPA shall be notified a minimum of 30 days prior to the scheduled date of these tests with the exact date, time, and place of these tests, to enable the Illinois EPA to witness these tests.

If the scheduled date for the test is changed for unforeseen reasons, the Permittee shall inform the Illinois EPA within five (5) working days of the scheduled test date and must specify the date of the rescheduled test.

A copy of the Final Report(s) for these tests and compliance status shall be submitted to the Illinois EPA within fourteen (14) days after the test results are compiled and finalized, prior to or accompanying the operating permit application. Satisfactory completion of these tests and compliance with the limitations of this permit shall be prerequisite to the issuance of an operating permit.

viii. A statement that the testing will be performed by a qualified independent testing service.

8. The Permittee shall notify the Illinois EPA as required by 40 CFR 60.7 and 60.48a, including:

a. Date of construction or reconstruction;

b. Anticipated date of initial startup; and

c. Actual date of initial startup.

9. The following monitoring shall be performed for the affected coil coating line. Specific monitoring required by 40 CFR 60, Subparts A and TT.

   a. Pursuant to 40 CFR 60.464(c), the Permittee shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with Condition 2(c). This device shall have an accuracy of ? 2.5?C or ? 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater. The Permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the afterburner used to control emissions from the affected coil coating line remains more than 28?C (50?F) below the temperature at which compliance with Condition 2(c) was demonstrated during the most recent measurement of afterburner efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.

10. The following records shall be kept for the affected coil coating line. Specific records required by 40 CFR 60, Subparts A and TT.

   a. Pursuant to 40 CFR 60.465(e), the Permittee shall maintain at the source, for a period of at least 2 years, daily records of the afterburner combustion temperature.

11. The following notification and reporting shall be performed for the affected coil coating line. Specific notification and reporting required by 40 CFR 60, Subparts A and TT.

   a. The Permittee shall include the following data in the initial compliance report required by 40 CFR 60.8:

      i. The overall VOM destruction rate used to attain compliance with Condition 2(b); and

      ii. The combustion temperature of the afterburner, used to attain compliance with Condition 2(b).

   b. The Permittee shall also submit reports at the frequency specified in 40 CFR 60.7(c) (quarterly) when the afterburner temperature drops as defined in Condition 3. If no such periods occur, the Permittee shall state this in the report.

12. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

The OPERATING permit application is DENIED because the Illinois Environmental Protection Act, Section 9, and 35 Ill. Adm. Code 201.160 might be violated.

Pursuant to Section 201.160, an operating permit may not be issued until the equipment has been constructed or modified in accordance with applicable conditions in this construction permit. The Illinois EPA suggests that you reapply for the operating permit after the construction is completed in accordance with the construction permit. This information must be submitted in duplicate and should reference the application and I.D. numbers assigned above.

If you have any questions on this, please call Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

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cc: Illinois EPA, FOS, Region 2
Illinois EPA, Compliance Section
Lotus Notes